

### **REMARKS**

The Office Action of December 27, 2002 has been reviewed and the Examiner's comments carefully considered. An Amendment was filed in this application on October 31, 2002 responding to a first Office Action, dated July 31, 2002. The Examiner is thanked for withdrawing: (1) the objections to the specification; (2) the 35 U.S.C. § 112, first paragraph, objections to the specification for clarity and conciseness; (3) the 35 U.S.C. § 112, second paragraph, rejections of claims 1, 2 and 4; and (4) the 35 U.S.C. § 103(a) obviousness rejections of claims 1-8.

All of pending claims 1-10 stand rejected. Specifically, claims 1, 3, 4 and 7-10 stand rejected under 35 U.S.C. § 102(b) for anticipation by U.S. Patent No. 5,553,734 to Sharp. Further, claims 2 and 6 stand rejected under 35 U.S.C. § 103(a) as being obvious over the Sharp patent in view of U.S. Patent No. 4,510,019 to Bartelloni. Finally, claim 5 stands rejected under 35 U.S.C. § 103(a) as being obvious over the Sharp patent in view of U.S. Patent No. 5,090,586 to Mitchell. Both the Sharp patent and the Mitchell patent have been cited by the Examiner throughout the prosecution of this case, and the Bartelloni patent was newly-cited reference in the outstanding Office Action.

Independent claim 1 of the present application is directed to an underground reservoir for storing liquid products. This reservoir includes an inner, main reservoir and an outer, secondary reservoir. The outer, secondary reservoir includes a coating layer, and the coating layer is formed by an inner layer made from a paper material and an outer layer made from polyurethane.

Independent claim 4 of the present application is directed to a process for manufacturing an underground reservoir. This manufacturing process includes the steps of: providing an inner, main reservoir; covering an outer surface of the main reservoir with

a first coating layer made from a paper material; and applying a second polyurethane-based coating layer over the first coating layer.

The Sharp patent is directed to a double-walled storage tank system having an enhanced wall integrity. The tank of the Sharp patent has an inner wall of steel and an outer wall made of a fibrous-reinforced resinous coating layer. The coating layer has an inner layer of fibrous-reinforced material and an outer layer of polyurethane.

The Bartelloni patent is directed to latex containing papers. It appears that the Examiner is using the Bartelloni patent for its teaching of specialty paper applications, such as the use of latex papers as liquid-resistant papers for use in manufacturing coated papers and boards. It further appears that the Examiner believes that the Bartelloni patent also teaches that latex papers can be used in tank construction, alleging that polymeric materials added as latex confer on the paper impermeability, flexibility and resistance.

The Mitchell patent is directed to a dual wall tank. It appears that the Examiner is using the Mitchell patent for its teaching of the common surface preparation technique of abrasive blasting of the steel. The Examiner further alleges that this is a well-known technique in the art.

Applicant again respectfully reiterates that the Sharp patent discloses an underground reservoir that is completely different in structure from the reservoir claimed in the present application. The Sharp patent suggests the use of a coating layer, which includes an inner layer made of a fibrous-reinforcing material and an outer layer made of polyurethane. However, the present invention is directed to an underground tank with an inner tank made from steel and an outer tank (or a layer that forms a tank) made of polyurethane. However, this outer tank does not include any fibrous-reinforcing material, as is specifically required by the Sharp patent. Instead, and according to the present

invention, the polyurethane is the reinforcing material and does not require any viscosity adjustment to receive any reinforcing fibrous material. Again, Applicant respectfully submits that this is a substantial difference in the manufacturing method that allows the total thickness of the outer layer of the present invention to be made of polyurethane in the range of 2.5 to 3.5 mm. However, the Sharp patent discusses a layer having a total thickness of roughly 4 cm. See column 5, lines 18-19.

The Examiner is thanked for responding to the arguments in the previously-filed Amendment, specifically at paragraph 10 on page 7 of the Office Action. It appears that the Examiner believes that the Sharp patent discloses the use of a resin layer alone, without a fiber reinforcing layer, as applied to a paper separating material, rather than a filament. Further, the Examiner contends that the resin added to the separating material does not have the high thickness that is required of the filament. Applicant respectfully disagrees.

The Examiner specifically references in the Sharp patent a main reservoir made of conventional steel (column 8, lines 32-36) and an outer, secondary wall of a coating layer, where the coating layer is made of a separating material and a resinous material. See column 9, lines 17-31. It appears that the Examiner is considering this to be a continuous wall formed over the separating material areas (column 9, lines 51-53) and the continuous wall or resin material is a resinous material alone having a desired thickness. The Examiner also contends that the resin material making up the continuous wall may be polyurethane. See column 6, lines 7-32.

After careful review, Applicant respectfully submits that the Sharp patent evidences a different structure than the structure as described by the Examiner in paragraph 4 on page 3 of the Office Action. Specifically referring to Fig. 11, the Sharp patent

discloses a system having an inner storage tank 41, where resinous material 42 is applied to the tank 41. While still tacky, a strip of an array 43 is wound in a spiral pattern around the side wall 44 and bonded to it. After this, a separating material 47 is preferably placed over the inner tank 41 in the areas not covered by the arrays. This separating material 47 overlaps the array 43, 46. Such separating materials would be pliable or semi-rigid materials, such as polyurethane, polyacetate, foam, matting, corrugated cardboard, wax surface paper and other fibrous materials, which range from about .01 inch to almost .50 inch in thickness. Therefore, and as seen in Fig. 11, the resulting structure is very thick and comprises multiple layers.

The Sharp patent (as seen in Fig. 11) does not disclose a secondary reservoir having a coating layer, where the coating layer is formed by an inner layer made from a paper material and an outer layer made of polyurethane. Instead, the tank system of the Sharp patent includes the inner storage tank 41, a resinous layer 42, a strip of array 43, separating material 47 and a final continuous wall 48 of resinous material formed over the discrete array and separating material areas. Therefore, the Sharp patent does not disclose an underground reservoir including an inner, main reservoir and including a coating layer, where the coating layer is formed by an inner layer made from a paper material and an outer layer made from polyurethane, as specifically set forth in independent claims 1 and 4 of the present invention.

For the foregoing reasons, independent claims 1 and 4 are not anticipated by or rendered obvious over the Sharp patent. There is no hint or suggestion in any of the references cited by the Examiner to combine these references in a manner which would render the invention, as claimed, obvious. None of the Bartelloni patent nor the Mitchell patent overcome the deficiencies of the Sharp patent. Whether used alone or in

combination, neither the Bartelloni patent nor the Mitchell patent disclose an underground reservoir including an inner, main reservoir and including a coating layer, where the coating layer is formed by an inner layer made from a paper material and an outer layer made from polyurethane, as disclosed in independent claims 1 and 4 of the present application. Therefore, independent claims 1 and 4 are not anticipated by or rendered obvious over the Bartelloni patent and the Mitchell patent. Reconsideration of the rejections of independent claims 1 and 4 is respectfully requested.

It is noted that the Examiner has attempted to use the Bartelloni patent and the Mitchell patent to cure the deficiencies of the Sharp patent. As set forth in MPEP § 2143.03, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. Further, the Examiner cannot use the claims as a blueprint for locating separate claim elements in separate prior art references without considering the teachings of the prior art as a whole and without considering the complete teachings of the separate references. There is nothing in the Sharp patent, the Bartelloni patent and the Mitchell patent which suggest the desirability of their combined teachings. Further, Applicant respectfully submits that the Bartelloni patent, which is directed to latex-containing papers, represents non-analogous art. This is clearly a separate field than tank manufacturing and construction. Therefore, Applicant respectfully submits that the Bartelloni patent has been improperly combined with the Sharp patent in forming the rejections of claims 2 and 6. In the absence of some “clear and particular” motivation to combine the teachings of the cited prior art, the objection is improper. Winner Int’l Royalty Corp. v Wang, 202 F.3d 1340, 1348-49 (Fed. Cir. 2000).

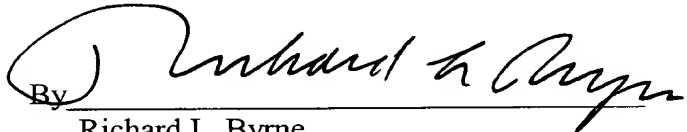
Claims 2, 3 and 9 depend directly from and add further limitations to independent claim 1 and are believed to be allowable for the reasons discussed hereinabove

in connection with independent claim 1. Dependent claims 5-8 and 10 depend either directly or indirectly from and add further limitations to independent claim 4 and are believed to be allowable for the reasons discussed hereinabove in connection with independent claim 4. Therefore, for all the above reasons, reconsideration of the rejections of claims 2, 3 and 5-10 is respectfully requested.

For all the foregoing reasons, Applicant believes that claims 1-10 are patentable over the cited prior art and are in condition for allowance. Reconsideration of the rejections and allowance of all pending claims 1-10 are respectfully requested.

Respectfully submitted,

WEBB ZIESENHEIM LOGSDON  
ORKIN & HANSON, P.C.

By 

Richard L. Byrne  
Reg. No. 28,498  
Attorney for Applicant  
700 Koppers Building  
436 Seventh Avenue  
Pittsburgh, PA 15219-1818  
Telephone: 412/471-8815  
Facsimile: 412/471-4094